

GARDCO LIGHTING

LEGISLATIVE LIGHTING SOLUTIONS



Energy Independence and Security Act of 2007



Gardco Lighting and Emco Lighting are Philips group brands

PHILIPS

Energy Independence and Security Act of 2007

What is it ?

This important federal legislation (also known as EISA) was signed into law in December of 2007. EISA standards take effect with luminaires manufactured on or after January 1, 2009, effectively eliminating probe start metal halide in new 150 watt through 500 watt metal halide luminaires, with some exclusions. Key provisions of the act include:

Excerpts from SEC. 324. METAL HALIDE LAMP FIXTURES, (1) STANDARDS

(A) IN GENERAL.— (subject to exclusions) . . . metal halide lamp fixtures designed to be operated with lamps rated greater than or equal to 150 watts but less than or equal to 500 watts shall contain—

- (i) a pulse-start metal halide ballast with a minimum ballast efficiency of 88 percent;
- (ii) a magnetic probe-start ballast with a minimum ballast efficiency of 94 percent; or
- (iii) a nonpulse-start electronic ballast with—
 - (I) a minimum ballast efficiency of 92 percent for wattages greater than 250 watts; and
 - (II) a minimum ballast efficiency of 90 percent for wattages less than or equal to 250 watts.

(B) EXCLUSIONS.—The standards established under subparagraph (A) shall not apply to—

- (i) fixtures with regulated lag ballasts;
- (ii) fixtures that use electronic ballasts that operate at 480 volts; or
- (iii) fixtures that—
 - (I) are rated only for 150 watt lamps;
 - (II) are rated for use in wet locations, as specified by the National Electrical Code 2002, section 410.4(A); and
 - (III) contain a ballast that is rated to operate at ambient air temperatures above 50°C, as specified by UL 1029–2001.

What does EISA mean for exterior lighting ?

Commonly specified Probe - Start Metal Halide lamps and ballasts can no longer be provided in new metal halide luminaires manufactured on or after January 1, 2009. The new standards apply regardless of when the project was begun, or when permits were issued. The law requires compliance with the standards in all new metal halide luminaires manufactured on or after January 1, 2009. 175 watt, 250 watt and 400 watt probe start metal halide systems do not comply with the standards and can no longer be provided in new metal halide luminaires.

What is the Solution ?




Gardco and Emco provide a full line of luminaires utilizing Pulse Start Metal Halide Systems meeting EISA standards while providing many added benefits, including Higher System Efficiency, Higher Initial Light Output, Higher Maintained Light Output and Reduced Energy Consumption. See the next page for suggested solutions.




What about California Title 20 and similar state laws ?




All EISA compliant Gardco and Emco luminaires also comply with California Title 20 and similar state laws that went into effect on January 1, 2008. Gardco and Emco are committed to providing a complete line of high quality exterior luminaires that meet legislated standards.

Suggested Compliant Replacement Systems

Replace 175 Watt, 250 Watt and 400 Watt Probe Start Metal Halide

Obsolete Probe Start System			EISA Compliant Replacement Systems										
Gardco / Emco wattage designation shown in shaded box.	175MH			125MH		150MH**		150MH**		150CMHE		175PSMH	
	175 Watt Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp			125 Watt Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp		150 Watt Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp		(With Ceramic MH Lamp) 150 Watt Metal Halide CWA Magnetic Ballast Ceramic MH Lamp		150 Watt Metal Halide Electronic Ballast Ceramic MH Lamp		175 Watt Pulse Start Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp	
DATA*	HORIZONTAL	VERTICAL	 REPLACE WITH	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL
System Watts:	210	210		150	150	185	185	185	185	169	169	208	208
Initial Lumens:	11,700	13,600		9,000	12,000	12,500	12,500	13,000	13,000	13,000	13,000	12,800	16,000
Mean Lumens:	7,400	8,800		6,300	8,400	8,500	8,500	9,750	9,750	9,750	9,750	8,960	11,200
Average Lamp Life: (Hours)	6,000	10,000		11,250	15,000	7,500	10,000	24,000	24,000	24,000	24,000	11,500	15,000
 HIGH PERFORMANCE COSMOPOLIS™			140CMPE†		140 Watt CosmoPolis™ High Performance Electronic Lamp and Ballast System		Low System Watts System Watts: 154		High Initial Lumens 95% Lumen Maintenance Initial: 16,540 Mean: 15,840		Long Lamp Life 30,000 hours (Avg. rated lamp life)		

Obsolete Probe Start System			EISA Compliant Replacement Systems									
Gardco / Emco wattage designation shown in shaded box.	250MH			200MH			250PSMH					
	250 Watt Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp			200 Watt Metal Halide (Pulse Start) Magnetic Ballast Quartz Arc Tube Lamp			250 Watt Pulse Start Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp					
DATA*	HORIZONTAL	VERTICAL	 REPLACE WITH	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL			
System Watts:	295	295		240	240	291	291	20,000	23,750			
Initial Lumens:	19,200	20,500		19,000	21,000	14,000	16,625	12,000	15,000			
Mean Lumens:	12,700	13,500		15,000	16,800	12,000	15,000	21,700	20,000 hours (Avg. rated lamp life)			
Average Lamp Life: (Hours)	7,500	10,000		12,000	15,000	12,000	15,000	21,700	20,000 hours (Avg. rated lamp life)			
 HIGH PERFORMANCE MASTERCOLOR® ELITE			210EMC†		210 Watt MasterColor® Elite High Performance Electronic Lamp and Ballast System		Low System Watts System Watts: 225		High Initial Lumens 90% Lumen Maintenance Initial: 24,150 Mean: 21,700		Long Lamp Life 20,000 hours (Avg. rated lamp life)	

Obsolete Probe Start System			EISA Compliant Replacement Systems									
Gardco / Emco wattage designation shown in shaded box.	400MH			320PSMH		350PSMH		400PSMH				
	400 Watt Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp			320 Watt Pulse Start Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp		350 Watt Pulse Start Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp		400 Watt Pulse Start Metal Halide CWA Magnetic Ballast Quartz Arc Tube Lamp				
DATA*	HORIZONTAL	VERTICAL	 REPLACE WITH	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL	HORIZONTAL	VERTICAL			
System Watts:	434	434		368	368	400	400	460	460			
Initial Lumens:	32,000	36,000		30,000	30,000	33,000	37,000	36,800	42,600			
Mean Lumens:	22,560	24,000		24,000	26,000	26,400	29,000	25,760	29,820			
Average Lamp Life: (Hours)	15,000	20,000		20,000	20,000	20,000	20,000	20,000	20,000			
 HIGH PERFORMANCE MASTERCOLOR® ELITE			315EMC†		315 Watt MasterColor® Elite High Performance Electronic Lamp and Ballast System		Low System Watts System Watts: 338		High Initial Lumens 90% Lumen Maintenance Initial: 37,800 Mean: 34,000		Long Lamp Life 20,000 hours (Avg. rated lamp life)	

*Data derived from information published by lamp and ballast manufacturers. It is provided as a general guide for comparison purposes only. Probe start systems show universal burning lamp data. EISA compliant systems include data from position-oriented lamps. Individual lamp and ballast performance may vary considerably from the data shown.

** 150 Watt Metal Halide Systems shown with magnetic ballasts qualify under the EISA exclusion for 150 watt wet location metal halide luminaires, utilizing ballasts rated for ambient temperatures above 50°C.

† CosmoPolis™ and MasterColor® Elite dedicated electronic lamp and ballast systems are less prone to significant performance variation based on burning position than more traditional metal halide systems. Consult factory if you need data for a specific luminaire and application.

Note: Consult submittal data sheets on www.sitelighting.com for currently available wattages for any specific product. Every wattage shown above may not be available for a specific product. Additionally, some products are not available in all input voltages. CosmoPolis™ and MasterColor® Elite will become available in many Gardco and Emco luminaires during 2009. Contact the factory for information on CosmoPolis® and MasterColor® Elite availability for a specific product family.

All suggested EISA compliant replacement systems offer substantial potential energy savings when compared to the obsolete probe start system, either based on luminaire for luminaire replacement, or with use of fewer luminaires for equal lighting performance. The energy savings will often payback the added system costs within a 3 year time period or less.

Gardco's Commitment to Sustainability



Gardco incorporates a "green" symbol to help its customers identify products that offer maximized energy savings. This symbol appears on product lines, or configurations within a product line, to help customers more quickly identify products that offer "true" energy consumption reduction. Gardco has a long history of approaching site lighting with a "less is more" strategy. Minimizing the number of luminaires and poles required on a site through performance optics and other product features was a founding principal of the company.

Use of energy efficient lamps and ballasts has become an important component of all product offerings and of our product engineering strategies. We consider energy consumption in our choice of lamps used with products. For products using fluorescent lamps we seek and encourage the use of lamps with the lowest mercury content possible.

Embracing new energy efficient technologies, such as high light output lamps and LEDs, is at the heart of all current new product development efforts.

Legislative Lighting Solutions

A full line of Gardco and Emco luminaires comply with the Energy Independence and Security Act of 2007.

Gardco Sconces:



101 / 141



102



103 / 104



105 / 106



107



108

Gardco Area and Street Luminaires:



Gullwing



Circa with LED Ring



Square Form 10



Round Form 10



Pyramid



Contura



Crown



HPV 19/23



Glowtop



CitySoul

Gaskins Series Pedestrian Scale:



GS01



GS01A



GS02



GS03



GS04

Garage Lighting:



GP1 Garage Luminaire

EMCO Area Luminaires:



Avalume



Avaround



Avalume Vertical



Ecolume



Ecoround

Note: Consult submittal data sheets on www.sitelighting.com for currently available wattages for any specific product. Every wattage shown above may not be available for a specific product. Additionally, some products are not available in all input voltages. CosmoPolis™ and MasterColor® Elite systems will become available in many Gardco and Emco luminaires during 2009. Contact the factory for information on CosmoPolis™ and MasterColor® Elite system availability for a specific product family.

Gardco Lighting and EMCO Lighting are Philips group brands

1611 Clovis Barker Road
 San Marcos, TX 78666
 512/753-1000
 800/227-0758
 Fax: 512/753-7855
www.sitelighting.com

